The Wisconsin Collaborative Diabetes Quality Improvement Project

COLLABORATION

Members represent over 50 diverse partners, including:

health care and professional organizations, minority groups, public health, business coalitions, insurance and managed care organizations, voluntary and community-based organizations, academic centers, industry representatives, and consumers

The Wisconsin Collaborative Diabetes Quality Improvement Project highlights an extraordinary level of cooperation among diverse, competitive health maintenance organizations to improve diabetes care in Wisconsin. Collaboration is key to this project's successes. This collaborative model may serve as the springboard for the expansion to other statewide quality improvement initiatives.

Many individuals and organizations make this project possible. Most importantly we would like to recognize the following organizations for their participation: Advanced Health Care, Atrium Health Plan, Inc., Compcare Health Services Insurance Corporation - CompcareBlue, Dean Health Plan, Inc., Family Health Center of Marshfield, Inc., Family Health Plan Cooperative, Great Lakes Inter-tribal Council, Inc., Group Health Cooperative of Eau Claire, Group Health Cooperative of South Central Wisconsin, Gundersen Lutheran Health Plan, Health Tradition, Humana Emphesys, Humana WHO, Managed Health Services, Innovative Resource Group, LLC, Mercycare Insurance Company, Network Health Plan, North Central Health Protection Plan, Pfizer, Physicians Plus Insurance Corporation, Prevea Health Plan, Security Health Plan of Wisconsin, Touchpoint Health Plan, UnitedHealthcare of Wisconsin, Inc., Unity Health Plans Insurance Corporation, Valley Health Plan, Wisconsin Association of Health Plans, Wisconsin Medical Society, and Wisconsin Physicians Service.

This project was supported by the Wisconsin Diabetes Control Program and the Diabetes Advisory Group; staff members of the Wisconsin Department of Health and Family Services, Division of Public Health, Bureau of Chronic Disease Prevention and Health Promotion, including, Faye Gohre, RN, BSN, Nancy Chudy, MPH, Pat Zapp, Dian Palmer, RN, BSN, Jenny Flath, MS, Judy Wing, and Peter Rumm, MD, MPH; Joe Blustein, MD, MS, and Judy Frisch, RN, MBA, of MetaStar; Richard M. Carr, MD, MS, and Sandra Mahkorn, MD, MPH, MS, of the Division of Health Care Financing; Kristine Dawson, MS, Patrick Remington, MD, MPH, and Robert Stone-Newsom, PhD, from the Department of Population Health Sciences, University of Wisconsin-Madison; and the members of the Quality Improvement Workgroup.

A report to the Wisconsin Department of Health and Family Services
Prepared by the University of Wisconsin – Madison, Department of Population Health Sciences,
Wisconsin Public Health & Health Policy Institute
June 2002

Graphic Design: Medical Illustration, University of Wisconsin Medical School

Mission

The mission of the Diabetes Control Program (DCP) is to improve diabetes care in Wisconsin.

Forming and maintaining strong, active partnerships are key to achieving this mission.

The DCP uses a statewide approach to improve diabetes care through:

- Working with health systems
- Designing population-based community interventions and health communications
- Outreach to high risk populations
- Conducting surveillance and evaluation of the burden of diabetes
- Coordination of efforts through the Diabetes Advisory Group

The Diabetes Advisory Group, convened by the DCP, provides the foundation for active partnerships across the state. Members include over 50 diverse partners, including health care and professional organizations, minority groups, business coalitions, insurance and managed care organizations, voluntary and community-based organizations, academic centers, industry and public health representatives, and consumers. These partners recently celebrated their 5th anniversary of ongoing collaboration.

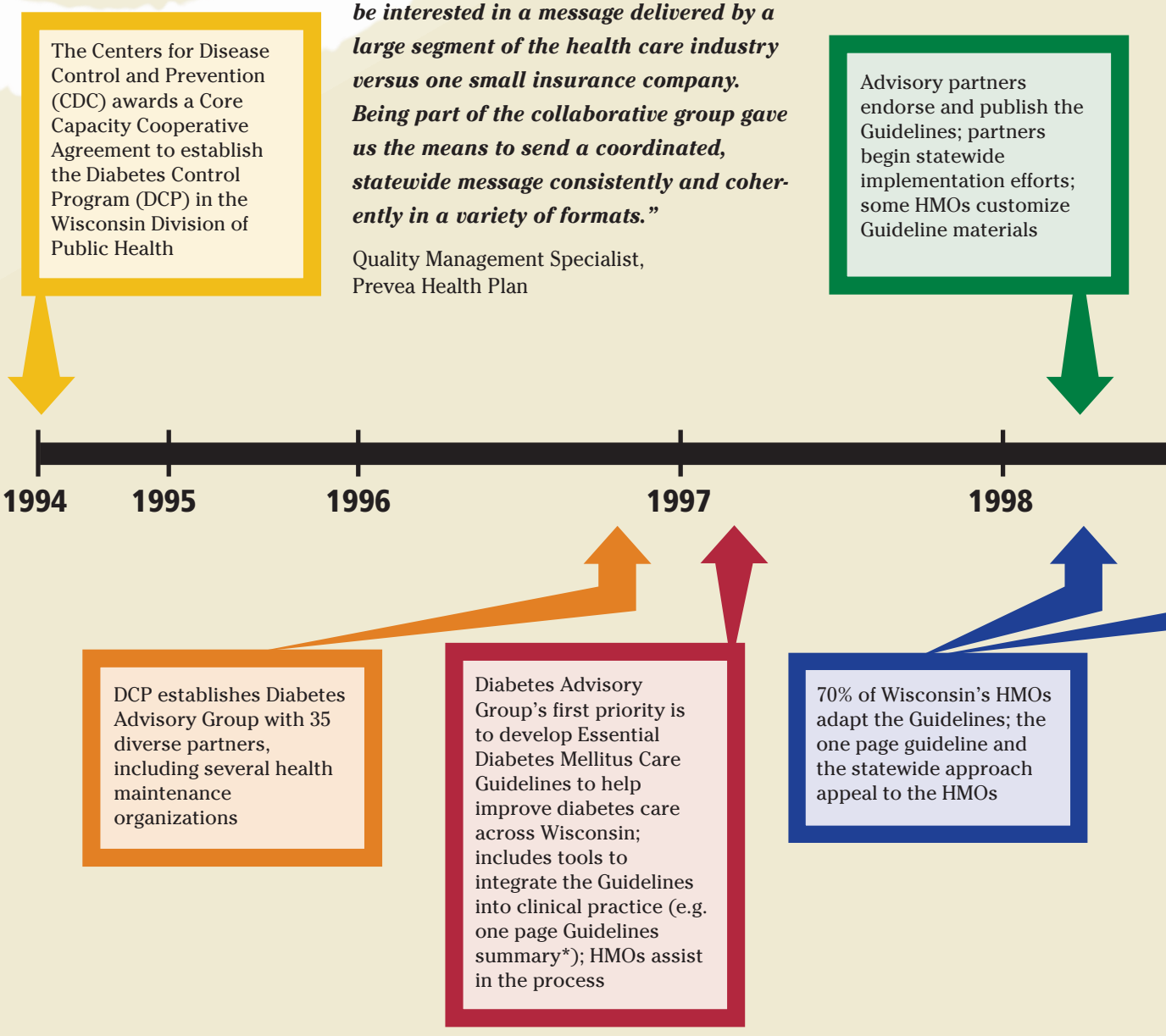
The Wisconsin Collaborative Diabetes Quality Improvement Project is a joint partnership. Members include the DCP, the University of Wisconsin – Madison Department of Population Health Sciences, MetaStar (Wisconsin's Quality Improvement Organization), the Division of Health Care Financing (Medicaid Program), health maintenance organizations (HMOs), and other health systems. The goal of the Wisconsin Collaborative Diabetes Quality Improvement Project is to improve the quality of diabetes care in Wisconsin's HMOs through:

- Evaluating implementation of the Essential Diabetes Mellitus Care Guidelines
- Sharing resources, strategies and best practices
- Improving diabetes care through collaborative quality improvement initiatives

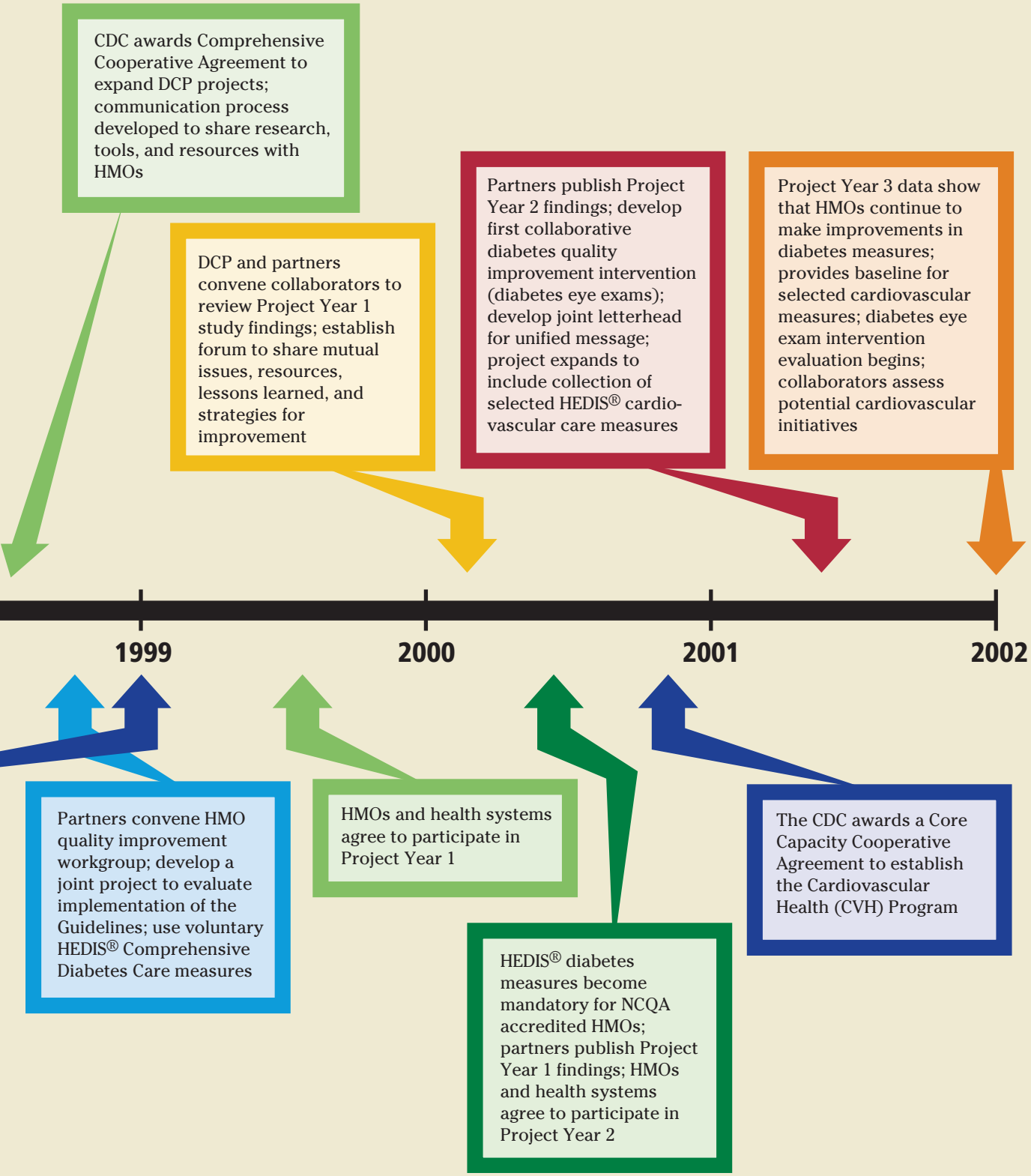
Collaboration is Key

"Being a member of the statewide diabetes collaborative project group allowed our plan to access materials, data, and people resources that would have otherwise taken years to develop. Providers are much more likely to pay attention to and be interested in a message delivered by a large segment of the health care industry versus one small insurance company. Being part of the collaborative group gave us the means to send a coordinated, statewide message consistently and coherently in a variety of formats."

Quality Management Specialist,
Prevea Health Plan

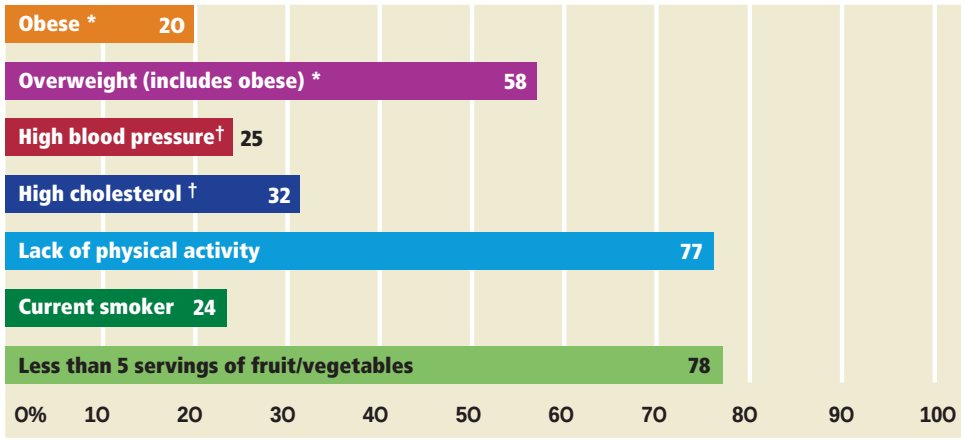


* See page 9 for one page version of Guidelines


CDC awards Comprehensive Cooperative Agreement to expand DCP projects; communication process developed to share research, tools, and resources with HMOs
DCP and partners convene collaborators to review Project Year 1 study findings; establish forum to share mutual issues, resources, lessons learned, and strategies for improvement
Partners publish Project Year 2 findings; develop first collaborative diabetes quality improvement intervention (diabetes eye exams); develop joint letterhead for unified message; project expands to include collection of selected HEDIS® cardio-vascular care measures
Project Year 3 data show that HMOs continue to make improvements in diabetes measures; provides baseline for selected cardiovascular measures; diabetes eye exam intervention evaluation begins; collaborators assess potential cardiovascular initiatives
1999
2000
2001
2002
Partners convene HMO quality improvement workgroup; develop a joint project to evaluate implementation of the Guidelines; use voluntary HEDIS® Comprehensive Diabetes Care measures
HMOs and health systems agree to participate in Project Year 1
HEDIS® diabetes measures become mandatory for NCQA accredited HMOs; partners publish Project Year 1 findings; HMOs and health systems agree to participate in Project Year 2
The CDC awards a Core Capacity Cooperative Agreement to establish the Cardiovascular Health (CVH) Program

Diabetes Facts and Figures

Percent of Wisconsin Adults with Risk Factors Related to Diabetes - 2000



* Overweight is defined as Body Mass Index (BMI) ≥ 25.0
* Obesity is defined as BMI ≥ 30.0
† Data are from 1999

Diabetes is a serious, common, costly yet controllable disease.

Serious: People with diabetes are at increased risk of numerous complications, including blindness, kidney disease, foot and leg amputations, and heart disease. Many adverse outcomes can be prevented by an aggressive program of early detection and appropriate treatment.

Common: Diabetes affects an estimated 330,000 people in Wisconsin, or 8% of the population. African American and American Indian populations often have higher rates of diabetes.

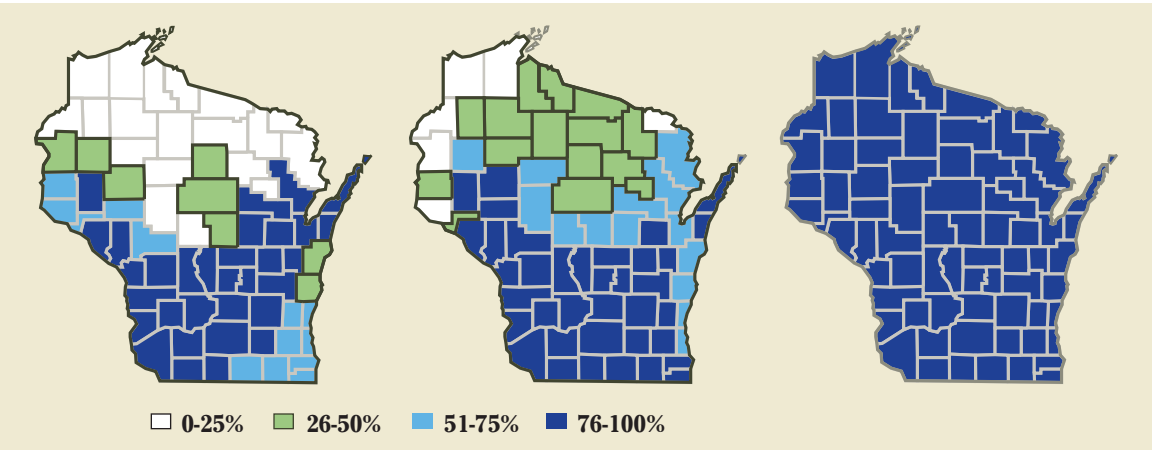
Costly: The cost of diabetes in Wisconsin is staggering. In 1998 estimated direct costs for diabetes were $1.26 billion and estimated indirect costs were $1.54 billion, totaling $2.8 billion.

Controllable: The Diabetes Prevention Program results (August 2001) found that participants randomly assigned to intensive lifestyle intervention (30 minutes of physical activity a day and diet improvement) reduced their risk of developing type 2 diabetes by 58%. This is significant news and offers encouragement that reduction in risk factors with modest lifestyle changes may be the best defense against diabetes.

Collaboration is Key

What is the Project?

Percent of HMO Enrollees in Each County Represented by Collaborators



	1999	2000	2001
% overall	68%	84%	98%

The Wisconsin Collaborative Diabetes Quality Improvement Project

Goal: *to improve the quality of diabetes care in Wisconsin's HMOs*

The Three Project Components

Evaluating implementation of the Essential Diabetes Mellitus Care Guidelines

- Collaborators selected the Health Plan Employer Data and Information Set (HEDIS®) Comprehensive Diabetes Care measures, developed by the National Committee for Quality Assurance (NCQA). Data offers unique opportunity to use the measures to assess Guideline implementation in Wisconsin.
- NCQA uses HEDIS® to accredit HMOs. The use of HEDIS® criteria provides standardized data collection at the population level to assess quality of care.
- The DCP contracts with the University of Wisconsin-Madison, Department of Population Health Sciences for confidential analysis and reporting of HMO HEDIS® data.
- In 2001 the HMO collaborators represented over 98% of the 1.5 million individuals currently enrolled in HMOs in Wisconsin, compared to 84% in 2000, and 68% in 1999 (see maps).
- The Project expanded to collect selected cardiovascular measures in Year 3.

Sharing resources, population-based strategies and best practices

- DCP maintains a system for ongoing communication with the HMOs.
- Partners convene a quarterly forum for HMO quality managers.
- Collaborators discuss issues and strategies (e.g., registry development, data collection issues, provider profiles, quality improvement activities).

Improving diabetes care through collaborative quality improvement initiatives

- Collaborators developed their first statewide quality improvement intervention. The goals of the Diabetes Eye Care Initiative are to increase exams and improve reporting of results and recommendations.
- Collaborators use joint letterhead to provide united message.

Collaboration is Key

How are we doing?

"Participating in the collaborative effort affords us the opportunity to have a resource that keeps us abreast of recent recommendations and materials available from nationally recognized organizations. Participating in the HMO sharing/learning sessions and data collaboration is an opportunity for us to compare our performance on HEDIS® measures at a statewide level and set goals according to benchmark rates reported among this group."

Diabetes Quality Improvement Nurse, Security Health Plan

For the purposes of this report only HMO commercial enrollee data are included, although other health systems are involved in the Wisconsin Collaborative Diabetes Quality Improvement Project. The NCQA requires accredited health plans to collect HEDIS® measures for care delivered in the previous calendar year. (e.g., HEDIS® 2001 reflects care from the year 2000 [Project Year 3]).

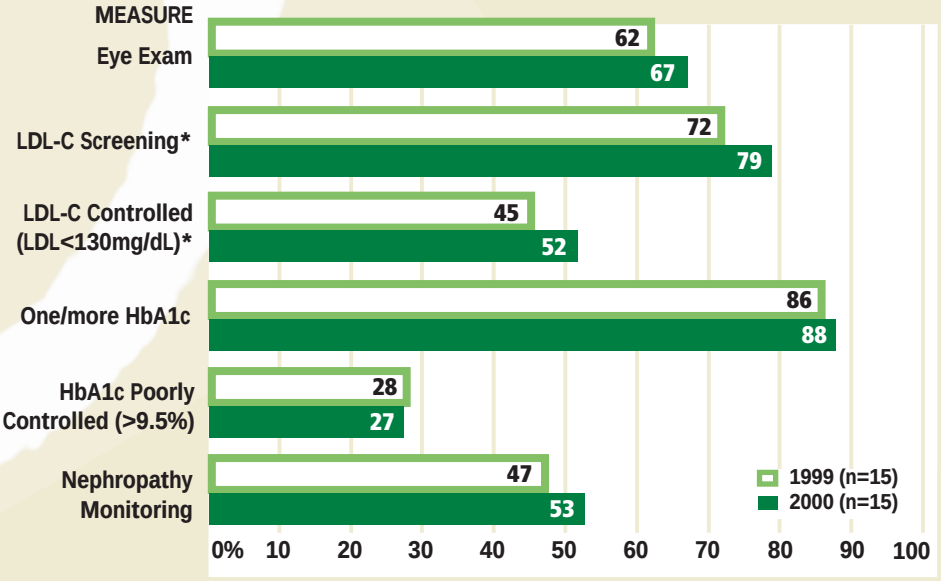
Reporting of Comprehensive Diabetes Care Measures for NCQA accredited HMOs was voluntary for HEDIS® 1999 (1998 data). Numerous collaborators decided to pilot test collection for the Project Year 1.

Reporting of the measures became mandatory with HEDIS® 2000 (1999 data).

The following list of diabetes care measures outlines changes from 1999 to 2000. The "percent of change" from year to year is reported first followed by the actual differences.

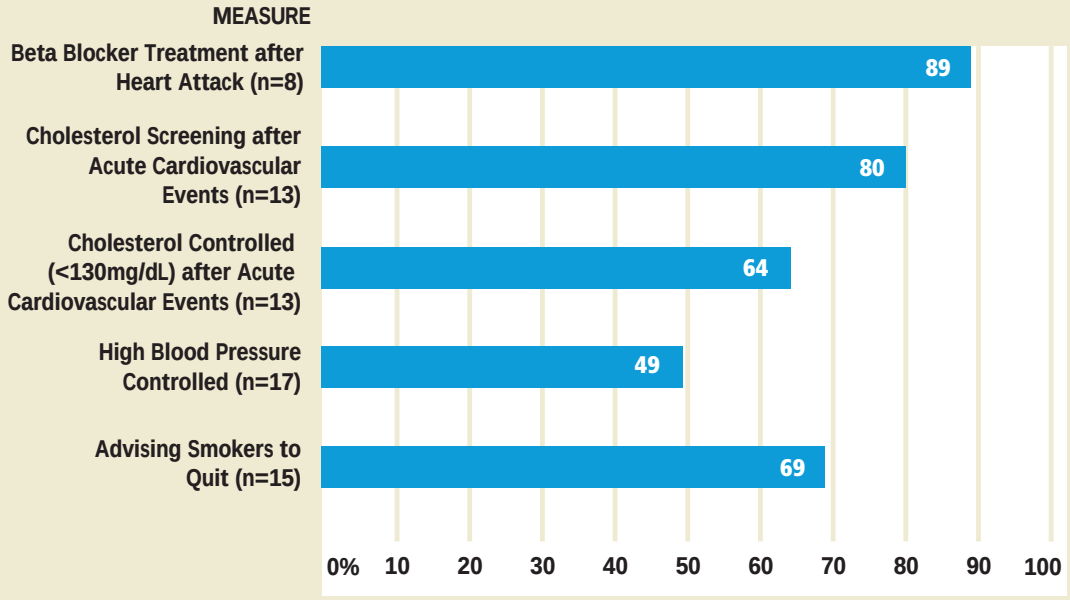
- Eye exams improved by 8% overall (62% to 67%)
- LDL-C screening improved by 10% (72% to 79%)
- LDL-C control (<130mg/dL) improved by 16% (45% to 52%)
- One/more HbA1c tests improved by 2% (86% to 88%)
- Poorly controlled HbA1c (>9.5%) improved by 4% (28% to 27%)
- Nephropathy monitoring improved by 13% (47% to 53%)

Comparison of Comprehensive Diabetes Care Measures Across HMOs, 1999, 2000 Data



*Statistically significant difference (p<.05)

Selected Cardiovascular Care Measure Expansion, 2000 Data



Collaboration is Key

How do we compare?

Comparison of National, Regional and Study Populations Receiving 2001 HEDIS® Measures

Measure	Age	Wisconsin Average	East North Central Regional Average*	National Average*
Eye exam	18-75 yrs.	69%	53%	48%
LDL-C screening performed	18-75 yrs.	78%	76%	77%
LDL-C controlled (<130 mg/dL)	18-75 yrs.	51%	47%	44%
One/more HbA1c	18-75 yrs.	87%	81%	78%
Poorly Controlled HbAlc (>9.5%)	18-75 yrs.	28%	37%	43%
Nephropathy Monitored	18-75 yrs.	52%	44%	41%
Beta Blocker Treatment after Heart Attack	≥ 35 yrs.	89%	90%	89%
Cholesterol Screening after Acute Cardiovascular Events	18-75 yrs.	80%	75%	74%
Cholesterol Control (<130mg/dL) after Acute Cardiovascular Events	18-75 yrs.	64%	54%	53%
Controlling High Blood Pressure	46-85 yrs.	49%	53%	51%
Advising Smokers to Quit	≥ 18 yrs.	69%	67%	66%

* The State of Managed Care Quality – 2001, NCQA

Project Advantages

- Results demonstrate that diabetes care measures have improved collectively in Wisconsin.
- People with diabetes in Wisconsin benefit from the improvements in care.
- HMOs receive local benchmarking data, reports to share with managers and community stakeholders, and a forum to address mutual concerns and best practices.
- The Diabetes Control Program receives valuable data for surveillance and evaluation, as well as vital support toward their mission to improve diabetes care.
- An ongoing communication forum helps with the:
  - distribution of new research and resources;
  - promotion of dynamic brainstorming and planning;
  - coordination of sharing quality improvement strategies;
  - DCP response to HMO requests.
- Use of diabetes registries has increased each year among the collaborators.
- Wisconsin's diverse HMOs are willing to collaborate with multiple partners and the state health department on quality improvement projects.
- The collaborators' high level of commitment contributed to the project's successes.
- Ongoing collaboration is vital to continue these statewide improvements.

Essential Diabetes Mellitus Care Guidelines - Wisconsin

Care is a partnership between the patient, family, and the diabetes team:
primary care provider, diabetes educator, nurse, dietitian, pharmacist and other specialists.

Abnormal physical or lab findings should result in appropriate interventions.
For particular details and references for each specific area, please refer to the supporting documents and implementation tools in the full-text guideline available via the Internet at **http://www.dhfs.state.wi.us/health/diabetes/DBMCGuidelns.htm** or call (608) 261-6871.

Concerns	Care/ Test	Frequency
General Recommendations	• Diabetes focused visit..... • Review management plan, problems & goals…….. • Assess Physical Activity/Diet/Weight-BMI/Growth…….	*Type 1**: every 3 months *Type 2**: every 3 - 6 months * or > often based on control & complications Each focused visit; revise as needed Each focused visit
Glycemic Control	• Review meds & frequency of low blood sugar..... • Self blood glucose monitoring, set & review goals..... • HbA1C - [goal: < 7.0% or ≤ 1% above lab norms].....	Each focused visit 2 - 4 times/day or as recommended Every 3 - 6 months
Kidney Function	• Urine for microalbumin: [if **higher** than 30 mcg/mg creatinine or > 30 mg/24 hours, initiate ACE inhibitor (unless contraindicated)] • Creatinine clearance & protein…… • Urinalysis.....	*Type 1:* Begin with puberty or after 5 yrs' duration, then yearly *Type 2:* At diagnosis, then yearly Yearly, after microalbuminuria > 300mg/24 hour At diagnosis and as indicated
Cardiovascular	• Smoking status..... • Lipid profile…… Adult goals: Triglycerides <200 mg/dl **HDL >45 mg/dl** LDL <100 mg/dl (optimal goal) • Blood pressure ..... Goals [**adult:** < 130/80] [If evidence of diabetic nephropathy, goal <125/75] [**peds:** below 90% of ideal for age] • Aspirin prophylaxis (unless contraindicated).....	Assess each visit; if smoker, counsel to stop; refer to cessation *Children:* If > 2 years, after diagnosis & once glycemic control is established - repeat yearly if abnormal. Follow National Cholesterol Education Program (NCEP) guidelines. *Adults:* yearly. If abnormal, follow NCEP guidelines. Each focused visit Age > 40 years
Eye Care	• Dilated eye exam by an ophthalmologist or optometrist	*Type 1*: If age >10 yrs, within 3-5 yrs of onset, then yearly *Type 2*: At diagnosis, then yearly or in alternate years at the discretion of the ophthalmologist or optometrist
Oral Health	• Oral health screening……..	Each focused visit; if dentate, refer for dental exam every 6 months (every 12 months if edentate)
Foot Care	• Inspect feet, with shoes and socks off..... • Comprehensive lower extremity exam.....	Each focused visit: stress need for daily self-exam Yearly
Pregnancy	• Assess contraception/discuss family planning/assess medications for teratogenicity • Preconception consult.....	At diagnosis & yearly during childbearing years 3 - 4 months prior to conception
Self Management Training	By diabetes educator, preferably a CDE • Curriculum to include the 10 key areas of the national standards for diabetes self-management education	At diagnosis, then every 6 - 12 months or more as indicated by the patient's status
Medical Nutrition Therapy	By a registered dietitian, preferably a CDE • To include areas defined by the American Dietetic Association's Nutrition Practice Guidelines	*Type 1**: At diagnosis, then, if age <18 years, every 3 - 6 months. If age >18 years, every 6 - 12 months *Type 2**: At diagnosis, then every 6 - 12 months; * Or > often as indicated by the patient's status.
Immunizations	• Influenza ..... • Pneumococcal……..	Per ACIP (Advisory Committee on Immunization Practices) Per ACIP

These guidelines were developed to provide guidance to primary care providers and are not intended to replace or preclude clinical judgement.

The Wisconsin Collaborative Diabetes Quality Improvement Project is an initiative of the Wisconsin Department of Health & Family Services, Division of Public Health, Bureau of Chronic Disease Prevention and Health Promotion, Diabetes Control Program.

For questions or to obtain a comprehensive summary concerning this project contact:

Wisconsin Department of Health and Family Services
Division of Public Health
Bureau of Chronic Disease Prevention and Health Promotion
Diabetes Control Program
PO Box 2659
Madison, WI 53701-2659

608-261-6855
Fax: 608-266-8925
e-mail: wingja@dhfs.state.wi.us

Or visit: http://www.dhfs.state.wi.us/health/diabetes

This publication was supported by Cooperative Agreement Number CCU515662-04 from the Centers for Disease Control and Prevention.